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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,394	06/26/2001	Akifumi Okigawa	193052/2000	9467

466 7590 05/08/2003

YOUNG & THOMPSON
745 SOUTH 23RD STREET 2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

COLON, GERMAN

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,394

Applicant(s)

OKIGAWA ET AL.

Examiner

German Colón

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3 and 5-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 6-13 is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. The Amendment, filed on March 04, 2003, has been entered and acknowledged by the Examiner.
2. Cancellation of claims 1 and 4 has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 2 is rejected under 35 U.S.C. 102(e) as being anticipated by Park et al. (US 6,522,071).

Park discloses an AC type plasma display panel comprising:

a first substrate **20** having first electrodes **22** and a dielectric layer **21** covering said first electrodes;

a second substrate **10** arranged in an opposed relation to said first substrate to form a discharge space therebetween;

discharge gas filled in said discharge space;

second electrodes formed on said second substrate, each said second electrode having a plurality of openings **18** each having a size included by a rectangular area having a length of one

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of two sides thereof in a range from a value equal to or larger than 5 μm to a value smaller than 30 μm ; and

a dielectric layer 11 covering said second electrodes,

wherein each said opening has a width in a range from a value equal to or larger than 5 μm to a value smaller than 30 μm and has a strip-shaped configuration (see Figs. 10-14 in view of Col. 4, lines 64-65). The Examiner notes that an opening in a strip-shaped configuration as that of Fig. 12, having the same area as the opening of Fig. 10, will comprise a width in the claimed range.

Allowable Subject Matter

5. Claims 3, and 6-13 allowed.

6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The Examiner notes that the Prior Art of Record (see US 6,479,934 or US 6,522,071) discloses a an AC type PDP comprising: a first substrate having first electrodes, a second substrate arranged in an opposed relation to said first substrate to form a discharge space therebetween; discharge gas filed in said discharge space; second electrodes formed on said substrate, each said second electrode having a plurality of openings each having an area with a diameter of 10 – 20 μm (or 30-50 μm) ; and a dielectric layer covering said second electrodes.

Referring to claim 3, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 3, and specifically comprising the limitation of "each said opening having a configuration including a combination of a plurality of openings having different configurations". By providing this configuration a PDP having improved luminous efficiency and small power consumption is obtained.

Referring to claim 5, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 5, and specifically comprising the limitation of "a width of the strip-shaped opening is in a range from 0.2 times to 1.8 times a thickness of the dielectric layer".

Referring to claim 6, claim 6 is allowed for the reasons given in claim 3, because of its dependency status from claim 3.

Regarding claims 7 and 8, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claims 7 and 8, and specifically comprising the limitation of "each said parallel electrode is constructed by a first area along a discharge and a second area where the openings are formed". By providing this configuration a PDP having improved luminous efficiency and small power consumption is obtained.

Regarding claim 9, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 9, and specifically comprising the limitation of "a plurality of strip-shaped openings where the smaller the ratio of a total area of said openings to an area of said strip-shaped areas is the closer to the discharge gap". By providing this configuration a PDP having improved luminous efficiency and small power consumption is obtained.

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Regarding claims 10-11, claims 10-11 are allowed for the reasons given in claim 7, because of its dependency status from claim 7.

Regarding claim 12, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 12, and specifically comprising the limitation of "each parallel electrode pair is constructed by a first area and a second area where said openings are arranged in the first area in a row direction and in the second area in a line direction". By providing this configuration a PDP having improved luminous efficiency and small power consumption is obtained.

Referring to claim 13, claim 13 is allowable for the reasons given in claim 12 because of its dependency status from claim 12.

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Hirano, in US 2001/0024921, discloses a PDP having a front substrate with electrodes, wherein said electrodes comprise a plurality of openings.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colón whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


VIP PATEL
PRIMARY EXAMINER


gc

May 5, 2003